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NEWS 3	Oct 27	New Extraction Code PAX now available in Derwent Files
NEWS 4	Oct 27	SET ABBREVIATIONS and SET PLURALS extended in Derwent World Patents Index files
NEWS 5	Oct 27	Patent Assignee Code Dictionary now available in Derwent Patent Files
NEWS 6	Oct 27	Plasdoc Key Serials Dictionary and Echoing added to Derwent Subscriber Files WPIDS and WPIX
NEWS 7	Nov 29	Derwent announces further increase in updates for DWPI
NEWS 8	Dec 5	French Multi-Disciplinary Database PASCAL Now on STN
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NEWS 12	Dec 17	Corrosion Abstracts on STN
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FILE 'HOME' ENTERED AT 10:52:53 ON 26 JAN 2001

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FILE 'USPATFULL' ENTERED AT 10:53:14 ON 26 JAN 2001
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=> s bcl and (P()ethoxy)

L1 18 BCL AND (P(W) ETHOXY)

=> s l1 and antisens?

L2 14 L1 AND ANTISENS?

=> dup rem l2

PROCESSING COMPLETED FOR L2
L3 8 DUP REM L2 (6 DUPLICATES REMOVED)

=> d l3 ibib abs tot

L3 ANSWER 1 OF 8 USPATFULL
ACCESSION NUMBER: 2000:124577 USPATFULL
TITLE: Liposome-entrapped polynucleotide composition and method
INVENTOR(S): Allen, Theresa M., Edmonton, Canada
Stuart, Darrin D., Edmonton, Canada
PATENT ASSIGNEE(S): Alza Corporation, Mountain View, CA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 6120798	20000919
APPLICATION INFO.:	US 1998-103341	19980623 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-50490	19970623 (60)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Guzo, David
ASSISTANT EXAMINER: Shuman, Jon
LEGAL REPRESENTATIVE: Mohr, Judy M.; Simboli, Paul B.Iota Pi Law Group
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 1125
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A liposome composition for administration of a polynucleotide and a method of preparing the composition are described. The liposomes in the suspension are composed predominantly of liposomes having a bilayer membrane formed of cationic vesicle-forming lipids and neutral vesicle forming lipids. The polynucleotide is entrapped in the central core of

the liposomes and is localized predominantly on the inner surface of the core.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 2 OF 8 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 2000:272776 BIOSIS
DOCUMENT NUMBER: PREV200000272776
TITLE: Cellular pharmacology of 7 and 20 mer liposomal **P -ethoxy antisense** oligonucleotides targeted to **Bcl**-2.
AUTHOR(S): Puente, Yolanda Gutierrez (1); Tari, A. M.; Guerra, R. Tamez; Berestein, G. Lopez
CORPORATE SOURCE: (1) M D Anderson Cancer Ctr, The Univ of Texas, Houston, TX
USA
SOURCE: Proceedings of the American Association for Cancer Research
Annual Meeting, (March, 2000) No. 41, pp. 834. print..
Meeting Info.: 91st Annual Meeting of the American Association for Cancer Research. San Francisco, California,
USA April 01-05, 2000
ISSN: 0197-016X.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L3 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:70027 CAPLUS
DOCUMENT NUMBER: 133:125049
TITLE: Preparation and application of liposome-incorporated oligodeoxynucleotides
AUTHOR(S): Tari, Ana M.
CORPORATE SOURCE: Department of Bioimmunotherapy, University of Texas MD
Anderson Cancer Center, Houston, TX, 77030, USA
SOURCE: Methods Enzymol. (2000), 313(Antisense Technology, Part A), 372-388
CODEN: MENZAU; ISSN: 0076-6879
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Carriers for **antisense** oligonucleotides, labeling of oligonucleotides in 32P radioisotope, incorporation of radiolabeled oligonucleotides in liposomes, cellular localization of oligonucleotides, specific inhibition of **Bcl**-2 protein expression by liposomal **Bcl**-2 **antisense** oligonucleotides, specific inhibition of Crkl and Grb2 protein expression by liposomal Crkl and liposomal Grb2 **antisense** oligonucleotides, selective growth inhibition of Philadelphia chromosome-pos. leukemic cells by L-Grb2 AS oligonucleotides, and in vitro behavior of liposomal **P-ethoxy** oligonucleotides are discussed. (c) 2000 Academic Press.
REFERENCE COUNT: 12
REFERENCE(S): (2) Tari, A; Biochem Biophys Res Commun 1997, V235, P383 CAPLUS
(3) Tari, A; Blood 1994, V84, P601 CAPLUS
(4) Tari, A; J Liposome Res 1998, V8, P251 CAPLUS
(5) Tari, A; J Liposomes Res 1997, V7, P19 CAPLUS
(6) Tari, A; J Mol Med 1996, V74, P623 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 8 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 1999454978 MEDLINE

DOCUMENT NUMBER: 99454978
TITLE: Safety, pharmacokinetics, and tissue distribution of liposomal **P-ethoxy antisense** oligonucleotides targeted to **Bcl**-2.
AUTHOR: Gutierrez-Puente Y; Tari A M; Stephens C; Rosenblum M; Guerra R T; Lopez-Berestein G
CORPORATE SOURCE: Department of Bioimmunotherapy, The University of Texas M.D. Anderson Cancer Center, Houston, Texas 77030, USA.
SOURCE: JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS, (1999 Nov) 291 (2) 865-9.
Journal code: JP3. ISSN: 0022-3565.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200001
ENTRY WEEK: 20000104

AB **Antisense** oligonucleotides (oligos) have the ability to selectively block disease-causing genes, thereby inhibiting production of disease-associated proteins. However, their effectiveness has been limited by their low intracellular delivery. We had previously demonstrated that liposomes could increase the intracellular uptake of **P-ethoxy** oligos, hydrophobic analogs of phosphodiesters, and that liposomal **Bcl**-2 **P-ethoxy antisense** oligos (L-**Bcl**-2) could selectively inhibit **Bcl**-2 protein production, thereby inducing growth inhibition in Follicular Lymphoma cell lines. To understand the in vivo behavior of L-**Bcl**-2, we conducted a series of studies to evaluate the safety, pharmacokinetics, and tissue distribution of i.v. injections of L-**Bcl**-2 in normal rodents. Daily administration of 20 mg of L-**Bcl**-2/kg of body weight in 5 consecutive days had no adverse effects on renal or hepatic functions, nor on hematological parameters. Histopathology also did not reveal any significant changes in the morphology of the organs studied. In rats, the area under the curve of L-**Bcl**-2 reflects a two-compartment model of distribution with a biphasic plasma clearance. The T(1/2alpha) and T(1/2beta) were approximately 8 min and 4.2 h, respectively, and the V(d) was 79 ml, indicating a broad body distribution. The highest concentrations of L-**Bcl**-2 were found in spleen > liver > kidneys. These studies showed that in the schedules studied no significant toxicity associated with L-**Bcl**-2 was observed over 6 weeks, and that L-**Bcl**-2 could be widely distributed in the body.

L3 ANSWER 5 OF 8 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1999:186918 BIOSIS
DOCUMENT NUMBER: PREV199900186918
TITLE: Pharmacokinetics, safety, tissue distribution and antitumoral activity of liposomal **P-ethoxy antisense** oligonucleotides targeted to **Bcl**-2.
AUTHOR(S): Gutierrez-Puente, Y. (1); Tari, A. M.; Stephens, C.; Rosemblum, M.; Ford, R.; Guerra, R. T.; Lopez-Berestein, G.
CORPORATE SOURCE: (1) M.D. Anderson Cancer Cent., Houston, TX USA
SOURCE: Proceedings of the American Association for Cancer Research
Annual Meeting, (March, 1999) Vol. 40, pp. 299.
Meeting Info.: 90th Annual Meeting of the American Association for Cancer Research Philadelphia, Pennsylvania, USA April 10-14, 1999 American Association for Cancer Research
. ISSN: 0197-016X.
DOCUMENT TYPE: Conference
LANGUAGE: English

L3 ANSWER 6 OF 8 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 19[redacted]108968 BIOSIS
DOCUMENT NUMBER: PREV199900108968
TITLE: Inhibition of **Bcl**-2 with liposomal **P-ethoxy antisense** oligonucleotides induces apoptosis in the presence of high level of **Bcl**-XL and is critically depending on baseline **Bcl**-2 levels in AML.
AUTHOR(S): Konopleva, M.; Tari, A.; Estrov, Z.; Harris, D.; Lopez-Beresein, G.; Andreeff, M.
CORPORATE SOURCE: U Texas MD Anderson Cancer Cent., Houston, TX USA
SOURCE: Blood, (Nov. 15, 1998) Vol. 92, No. 10 SUPPL. 1 PART 1-2, pp. 510A-511A.
Meeting Info.: 40th Annual Meeting of the American Society of Hematology Miami Beach, Florida, USA December 4-8, 1998 The American Society of Heamatology
. ISSN: 0006-4971.
DOCUMENT TYPE: Conference
LANGUAGE: English

L3 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 2
ACCESSION NUMBER: 1998:400091 CAPLUS
DOCUMENT NUMBER: 129:183821
TITLE: Pharmacokinetics, tissue distribution, and safety of **p-ethoxy** oligonucleotides incorporated in liposomes
AUTHOR(S): Tari, Ana M.; Stephens, Clifton; Rosenblum, Michael; Lopez-Berestein, Gabriel
CORPORATE SOURCE: Department of Bioimmunotherapy, The University of Texas M.D. Anderson Cancer Center, Houston, TX, USA
SOURCE: J. Liposome Res. (1998), 8(2), 251-264
CODEN: JLREE7; ISSN: 0898-2104
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **P-ethoxy** oligonucleotides (oligos) are lipophilic analogs of phosphodiesters. We have used liposomes to increase the intracellular uptake of **P-ethoxy** oligos, and demonstrated that liposomal **P-ethoxy antisense** oligos specific for Bcr-Abl, Grb2, Crkl or **Bcl**-2 mRNA could selectively inhibit the prodn. of the corresponding proteins, thereby inducing growth inhibition in leukemia and lymphoma cell lines. In support of studying the effectiveness of liposomal **P-ethoxy antisense** oligos in animal models, we had conducted a series of studies to evaluate the pharmacokinetics, tissue distribution and safety of i.v. injection of liposomal **P-ethoxy** oligos in normal mice. The pharmacokinetics and tissue distribution of liposomal **P-ethoxy** oligos are very similar to those of other liposomal compds. The plasma clearance rate of liposomal **P-ethoxy** oligos was biphasic; the t1/2.alpha. and t1/2.beta. were approx. 6.7 min and 7 h, resp. The highest concns. of liposomal **P-ethoxy** oligos were found in spleen and liver, with a t1/2 of approx. 48 h. When up to 180 mg of **P-ethoxy** oligos per kg of mice's body wt. were used, the administration of liposomal **P-ethoxy** oligos had no adverse effects on renal and hepatic functions, or on the hematol. parameters studied. No major organ pathol. changes were obsd. Our studies suggested that, at the doses studied, liposomal **P-ethoxy** oligos could be safely used in animal studies. Since liposomal **P-ethoxy** oligos were found to accumulate mainly in spleen and liver, which are the major organs of leukemic and lymphoma disease manifestation, we are currently investigating the use of liposomal **P-ethoxy antisense** oligos in exptl. leukemia and lymphoma animal models.

L3 ANSWER 8 OF 8 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1996:255295 BIOSIS
DOCUMENT NUMBER: PREV199698811424
TITLE: Antitumor activity of liposomal-**bcl**-2-**antisense** oligonucleotides in follicular lymphoma.
AUTHOR(S): Tormo, M. (1); Tari, A.; McDonnell, T. J.; Khodadadlan, M.;
Cabanillas, F.; Garcia-Conde, J.; Lopez-Berestein, G.
CORPORATE SOURCE: (1) Univ. Texas M. D. Anderson Cancer Center, Houston, TX USA
SOURCE: Proceedings of the American Association for Cancer Research
Annual Meeting, (1996) Vol. 37, No. 0, pp. 173.
Meeting Info.: 87th Annual Meeting of the American Association for Cancer Research Washington, D.C., USA April
20-24, 1996
ISSN: 0197-016X.
DOCUMENT TYPE: Conference
LANGUAGE: English

=> d l3 abs

L3 ANSWER 1 OF 8 USPATFULL
AB A liposome composition for administration of a polynucleotide and a method of preparing the composition are described. The liposomes in the suspension are composed predominantly of liposomes having a bilayer membrane formed of cationic vesicle-forming lipids and neutral vesicle forming lipids. The polynucleotide is entrapped in the central core of the liposomes and is localized predominantly on the inner surface of the
core.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d l3 abs ibib 8

L3 ANSWER 8 OF 8 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1996:255295 BIOSIS
DOCUMENT NUMBER: PREV199698811424
TITLE: Antitumor activity of liposomal-**bcl**-2-**antisense** oligonucleotides in follicular lymphoma.
AUTHOR(S): Tormo, M. (1); Tari, A.; McDonnell, T. J.; Khodadadlan, M.;
Cabanillas, F.; Garcia-Conde, J.; Lopez-Berestein, G.
CORPORATE SOURCE: (1) Univ. Texas M. D. Anderson Cancer Center, Houston, TX USA
SOURCE: Proceedings of the American Association for Cancer Research
Annual Meeting, (1996) Vol. 37, No. 0, pp. 173.
Meeting Info.: 87th Annual Meeting of the American Association for Cancer Research Washington, D.C., USA April
20-24, 1996
ISSN: 0197-016X.
DOCUMENT TYPE: Conference
LANGUAGE: English

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CA SUBSCRIBER PRICE	-1.18	-1.18

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u
=> s (p()ethoxy) and (antisens?)

L5 28 (P(W) ETHOXY) AND (ANTISENS?)

=> dup rem l5

PROCESSING COMPLETED FOR L5
L6 20 DUP REM L5 (8 DUPLICATES REMOVED)

=> d l6 ibib abs tot

L6 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1
ACCESSION NUMBER: 2000:47060 CAPLUS
DOCUMENT NUMBER: 132:102859
TITLE: Oligonucleotide phosphate esters for **antisense** -based therapy
INVENTOR(S): Dale, Roderic M. K.; Arrow, Amy; Srivastava, Suresh C.; Raza, Syed K.
PATENT ASSIGNEE(S): ChemGenes Corp., USA; Oligos Etc., Inc.
SOURCE: U.S., 31 pp., Cont.-in-part of U. S. Ser. No. 662,447, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6015886	A	20000118	US 1997-795926	19970205
US 5525719	A	19960611	US 1993-65016	19930524
PRIORITY APPLN. INFO.:			US 1993-65016	19930524
			US 1996-662447	19960610
			US 1991-753077	19910830

OTHER SOURCE(S): MARPAT 132:102859

AB Synthetic oligonucleotides that are useful for **antisense**-based therapeutic applications are provided. The synthetic oligonucleotides of the invention have modifications in the sugar phosphate backbone for improved **antisense** properties. The inventors have discovered that oligonucleotides contg. **P-ethoxy** backbones, as well as chimeric or gapmer oligonucleotides using **P-ethoxy** oligodeoxynucleotides, **P-ethoxy**-2'-O-Me oligonucleotides and chimeras contg. these crit. backbones, by way of illustration, fulfill the criteria for an ideal therapeutic agents. The oligodeoxynucleotides and 2'-O-methyloligonucleotides of the invention contain **P-ethoxy** backbone and show nuclease resistance, as well as Tm values that are superior to that of phosphorothioates. The **P-ethoxy** oligodeoxynucleotides and the 2'-O-methyl-**p-ethoxy** oligonucleotides further show ability to activate bacterial RNaseH as well as significant specific gene inhibition in **antisense** assays.

REFERENCE COUNT: 32

REFERENCE(S): (1) Alexandrova; Coll Czech Chem Comm 1977, V42, P1686
CAPLUS
(3) Anon; EP 0260032 1988 CAPLUS
(4) Anon; EP 0339842 1989 CAPLUS
(5) Anon; WO 9106309 1991 CAPLUS
(7) Cotten; Nucleic Acids Res 1991, V19(10), P2629
CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 20 BIOSIS COPYRIGHT 2001 BIOSIS DUPLICATE 2

ACCESSION NUMBER: 2000:435414 BIOSIS
DOCUMENT NUMBER: PREV200000435414
TITLE: Liposomal phosphodiester, phosphorothioate, and **p-ethoxy** oligonucleotides.
AUTHOR(S): Lopez-Berestein, Gabriel (1); Tari, Ana Maria
CORPORATE SOURCE: (1) Houston, TX USA
ASSIGNEE: Board of Regents, University of Texas System, Austin, TX, USA
PATENT INFORMATION: US 6042846 March 28, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Mar. 28, 2000) Vol. 1232, No. 4, pp. No pagination. e-file.
ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English

AB An improved delivery system for **antisense** oligonucleotides involves a liposomal composition, comprising a liposome which consists essentially of neutral phospholipids and an **antisense** oligonucleotide that is entrapped in the liposome and is selected from the group consisting of phosphodiester oligonucleotides, phosphorothioate oligonucleotides, and **p-ethoxy** oligonucleotides.

L6 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2001 ACS

ACCESSION NUMBER: 2000:475786 CAPLUS
DOCUMENT NUMBER: 133:99558
TITLE: Modified **antisense** oligonucleotides for inhibiting phosphodiesterase 4 gene expression and the

therapeutic uses thereof
INVENTOR(S): Dale, Roderic M. K.; Arrow, Amy; Thompson, Terry
PATENT ASSIGNEE(S): Oligos Etc. Inc., USA
SOURCE: PCT Int. Appl., 48 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000040714	A2	20000713	WO 1999-US29976	19991215
WO 2000040714	A3	20001102		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1998-223586 19981230
US 1999-364626 19990729

AB The invention provides end-blocked acid resistant **antisense** oligonucleotides targeted at inhibiting expression of genes coding for Phosphodiesterase 4 (PDE4). The oligonucleotides of this invention exhibit substantial stability at low pH, substantial resistance to nuclease degrdn., low toxicity and binding specificity both in vivo and in vitro. The invention further relates to the therapeutic uses of oligonucleotides of this invention in treatment of PDE4-mediated diseases.

L6 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:475673 CAPLUS
DOCUMENT NUMBER: 133:84234
TITLE: Protonated/acidified nucleic acids and uses thereof in
treatment of diseases caused by bacterial pathogens
INVENTOR(S): Dale, Roderic M. K.; Arrow, Amy; Gatton, Steven L.; Thompson, Terry
PATENT ASSIGNEE(S): Oligos Etc. Inc., USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000040591	A1	20000713	WO 1999-US29843	19991215

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1998-222009 19981230
AB The present invention provides protonated/acidified nucleic acids that are

effective antibiotics against both drug-resistant and susceptible bacteria in vivo and in vitro. These modified nucleic acids are effective as bactericidal and or/bacteristatic agents without regard to the specific sequence or length of the nucleic acid mol. The nucleic acids of this invention may have nuclease resistant backbones, acid resistant backbones, and, in their preferred embodiment, have both acid resistant and nuclease resistant backbones. The invention also relates to the therapeutic uses of protonated/acidified nucleic acids as antibacterial agents in prevention and treatment of diseases assocd. with bacterial infection. The invention further relates to the uses of protonated/acidified nucleic acids in disinfectants and cosmetic products.

REFERENCE COUNT: 3

REFERENCE(S):
(1) Oligos Etc And Oligos Therapeu; WO 9803533 A 1998 CAPLUS
(2) Univ Johns Hopkins; WO 9415619 A 1994 CAPLUS
(3) Vical Inc; WO 9014074 A 1990 CAPLUS

L6 ANSWER 5 OF 20 USPATFULL

ACCESSION NUMBER: 2000:124577 USPATFULL

TITLE: Liposome-entrapped polynucleotide composition and method

INVENTOR(S): Allen, Theresa M., Edmonton, Canada
Stuart, Darrin D., Edmonton, Canada

PATENT ASSIGNEE(S): Alza Corporation, Mountain View, CA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 6120798	20000919
APPLICATION INFO.:	US 1998-103341	19980623 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-50490	19970623 (60)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Guzo, David
ASSISTANT EXAMINER: Shuman, Jon
LEGAL REPRESENTATIVE: Mohr, Judy M.; Simboli, Paul B.Iota Pi Law Group
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 1125
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A liposome composition for administration of a polynucleotide and a method of preparing the composition are described. The liposomes in the suspension are composed predominantly of liposomes having a bilayer membrane formed of cationic vesicle-forming lipids and neutral vesicle forming lipids. The polynucleotide is entrapped in the central core of the liposomes and is localized predominantly on the inner surface of the core.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 6 OF 20 USPATFULL

ACCESSION NUMBER: 2000:87942 USPATFULL

TITLE: Arrays with modified oligonucleotide and polynucleotide compositions

INVENTOR(S): Dale, Roderic M. K., Wilsonville, OR, United States

PATENT ASSIGNEE(S): Oligos Etc. Inc., Wilsonville, OR, United States (U.S. corporation)

	NUMBER	DATE

	NUMBER	DATE
PATENT INFORMATION:	US 6087112	20000711
APPLICATION INFO.:	US 1999-408088	19990929 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1998-223498, filed on 30 Dec 1998
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Schwartzman, Robert A.
ASSISTANT EXAMINER: Wang, Andrew
LEGAL REPRESENTATIVE: DeVore, Dianna L.Bozicevic, Field & Francis LLP
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 10 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 1680
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides arrays having associated modified oligonucleotides, e.g., 2'-O-R oligonucleotides, methods of making such arrays, assays for using such arrays, and kits containing such arrays. In one embodiment, the arrays of the invention exhibit an increased binding affinity with complementary nucleic acids, and in particular with complementary RNA. In another embodiment, the associated nucleic acids of the array of the invention exhibit substantial acid resistance,
allowing the arrays to be treated with low pH solutions. In another embodiment, the modified associated nucleic acids of the array of the invention exhibit substantial resistance to nuclease degradation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 7 OF 20 USPATFULL
ACCESSION NUMBER: 2000:53757 USPATFULL
TITLE: Therapeutic liposome composition and method of preparation
INVENTOR(S): Allen, Theresa M., Edmonton, Canada
Uster, Paul, Tracy, CA, United States
Martin, Francis J., San Francisco, CA, United States
Zalipsky, Samuel, Redwood City, CA, United States
PATENT ASSIGNEE(S): Sequus Pharmaceuticals, Inc., Menlo Park, CA, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 6056973	20000502
APPLICATION INFO.:	US 1998-138480	19980821 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-949046, filed on 10 Oct 1997, now patented, Pat. No. US 5891468

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-28269	19961011 (60)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Kishore, Gollamudi S.
LEGAL REPRESENTATIVE: Mohr, Judy M.Dehlinger & Associates
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 1210
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Reagents for use in preparing a therapeutic liposome composition sensitized to a target cell are described. The reagents include a liposomal composition composed of pre-formed liposomes having an entrapped therapeutic agent and a plurality of targeting conjugates composed of a lipid, a hydrophilic polymer and a targeting ligand. The therapeutic, target-cell sensitized liposome composition is formed by incubating the liposomal composition with a selected conjugate.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 8 OF 20 USPATFULL
ACCESSION NUMBER: 2000:18278 USPATFULL
TITLE: Modified retroviral vectors
INVENTOR(S): Beach, David, Huntington Bay, NY, United States
Hannon, Gregory J., Huntington, NY, United States
PATENT ASSIGNEE(S): Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, United States (U.S. corporation)

	NUMBER	DATE
PATENT INFORMATION:	US 6025192	20000215
APPLICATION INFO.:	US 1996-716926	19960920 (8)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Degen, Nancy
ASSISTANT EXAMINER: McGarry, Sean
LEGAL REPRESENTATIVE: Vincent, Matthew P.; Steel, Diana M.Foley, Hoag & Eliot, LLP
NUMBER OF CLAIMS: 60
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
LINE COUNT: 2350
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to methods and compositions for the elucidation of mammalian gene function. Specifically, the present invention relates to methods and compositions for improved mammalian complementation screening, functional inactivation of specific essential or non-essential mammalian genes, and identification of mammalian genes which are modulated in response to specific stimuli.

In particular, the compositions of the present invention include, but are not limited to, replication-deficient retroviral vectors, libraries comprising such vectors, retroviral particles produced by such vectors in conjunction with retroviral packaging cell lines, integrated provirus sequences derived from the retroviral particles of the invention and circularized provirus sequences which have been excised from the integrated provirus sequences of the invention. The compositions of the present invention further include novel retroviral packaging cell lines.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 9 OF 20 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 2000:272776 BIOSIS
DOCUMENT NUMBER: PREV200000272776
TITLE: Cellular pharmacology of 7 and 20 mer liposomal **P -ethoxy antisense** oligonucleotides targeted to Bcl-2.
AUTHOR(S): Puente, Yolanda Gutierrez (1); Tari, A. M.; Guerra, R. Tamez; Berestein, G. Lopez
CORPORATE SOURCE: (1) M D Anderson Cancer Ctr, The Univ of Texas, Houston, TX
USA
SOURCE: Proceedings of the American Association for Cancer Research
Annual Meeting, (March, 2000) No. 41, pp. 834. print..
Meeting Info.: 91st Annual Meeting of the American Association for Cancer Research. San Francisco, California,
USA April 01-05, 2000
ISSN: 0197-016X.
DOCUMENT TYPE: Conference
LANGUAGE: English
SUMMARY LANGUAGE: English

L6 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 2000:70027 CAPLUS
DOCUMENT NUMBER: 133:125049
TITLE: Preparation and application of liposome-incorporated oligodeoxynucleotides
AUTHOR(S): Tari, Ana M.
CORPORATE SOURCE: Department of Bioimmunotherapy, University of Texas MD Anderson Cancer Center, Houston, TX, 77030, USA
SOURCE: Methods Enzymol. (2000), 313(Antisense Technology, Part A), 372-388
CODEN: MENZAU; ISSN: 0076-6879
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Carriers for **antisense** oligonucleotides, labeling of oligonucleotides in 32P radioisotope, incorporation of radiolabeled oligonucleotides in liposomes, cellular localization of oligonucleotides, specific inhibition of Bcl-2 protein expression by liposomal Bcl-2 **antisense** oligonucleotides, specific inhibition of Crkl and Grb2 protein expression by liposomal Crkl and liposomal Grb2 **antisense** oligonucleotides, selective growth inhibition of Philadelphia chromosome-pos. leukemic cells by L-Grb2 AS oligonucleotides, and in vitro behavior of liposomal **P-ethoxy** oligonucleotides are discussed. (c) 2000 Academic Press.
REFERENCE COUNT: 12
REFERENCE(S): (2) Tari, A; Biochem Biophys Res Commun 1997, V235, P383 CAPLUS
(3) Tari, A; Blood 1994, V84, P601 CAPLUS
(4) Tari, A; J Liposome Res 1998, V8, P251 CAPLUS
(5) Tari, A; J Liposomes Res 1997, V7, P19 CAPLUS
(6) Tari, A; J Mol Med 1996, V74, P623 CAPLUS
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 11 OF 20 USPATFULL
ACCESSION NUMBER: 1999:151015 USPATFULL
TITLE: Three component chimeric **antisense** oligonucleotides
INVENTOR(S): Arrow, Amy, Bethel, ME, United States
Dale, Roderic M. K., Wilsonville, OR, United States
Woolf, Tod Mitchell, 21 Birch Rd., Natick, MA, United States 01760
PATENT ASSIGNEE(S): Oligos Etc. Inc., Wilsonville, OR, United States (U.S. corporation)
Woolf, Tod Mitchell, Natick, MA, United States (U.S. individual)

	NUMBER	DATE
PATENT INFORMATION:	US 5989912	19991123
APPLICATION INFO.:	US 1998-211795	19981215 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1996-754580, filed on 21 Nov 1996, now patented, Pat. No. US 5849902
DOCUMENT TYPE: Utility
PRIMARY EXAMINER: Leguyader, John
LEGAL REPRESENTATIVE: Bozicevic, Field & Francis LLP
NUMBER OF CLAIMS: 23
EXEMPLARY CLAIM: 1
LINE COUNT: 597
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to **antisense** oligonucleotides that target mRNAs in cells as substrates for the cellular enzyme RNase H and thereby cause specific degradation of the targeted mRNA. The oligonucleotides have three components: a RNase H activating region, a

complementarity region and 3' and 5' ends. The invention optimizes each of the components to resist intracellular nucleases, to increase hybridization [redacted] target mRNA, to specifically i[redacted]tivate target mRNA in cells, and to decrease cytotoxicity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 12 OF 20 USPATFULL
ACCESSION NUMBER: 1999:1252 USPATFULL
TITLE: Liposomal phosphodiester, phosphorothioate, and **P-ethoxy** oligonucleotides
INVENTOR(S): Lopez-Berestein, Gabriel, Houston, TX, United States
Tari, Ana Maria, Houston, TX, United States
PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, Austin, TX, United States (U.S. corporation)

	NUMBER	DATE	
PATENT INFORMATION:	US 5855911	19990105	
APPLICATION INFO.:	US 1995-520385	19950829	(8)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: LeGuyader, John L.
ASSISTANT EXAMINER: Wang, Andrew
LEGAL REPRESENTATIVE: Arnold, White & Durkee
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 8 Drawing Page(s)
LINE COUNT: 720
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB An improved delivery system for **antisense** oligonucleotides involves a liposomal composition, comprising a liposome which consists essentially of neutral phospholipids and an **antisense** oligonucleotide that is entrapped in the liposome and is selected from the group consisting of phosphodiester oligonucleotides, phosphorothioate oligonucleotides, and **p-ethoxy** oligonucleotides.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 13 OF 20 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 1999454978 MEDLINE
DOCUMENT NUMBER: 99454978
TITLE: Safety, pharmacokinetics, and tissue distribution of liposomal **P-ethoxy antisense** oligonucleotides targeted to Bcl-2.
AUTHOR: Gutierrez-Puente Y; Tari A M; Stephens C; Rosenblum M; Guerra R T; Lopez-Berestein G
CORPORATE SOURCE: Department of Bioimmunotherapy, The University of Texas M.D. Anderson Cancer Center, Houston, Texas 77030, USA.
SOURCE: JOURNAL OF PHARMACOLOGY AND EXPERIMENTAL THERAPEUTICS, (1999 Nov) 291 (2) 865-9.
Journal code: JP3. ISSN: 0022-3565.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200001
ENTRY WEEK: 20000104
AB **Antisense** oligonucleotides (oligos) have the ability to selectively block disease-causing genes, thereby inhibiting production of disease-associated proteins. However, their effectiveness has been limited by their low intracellular delivery. We had previously demonstrated that liposomes could increase the intracellular uptake of **P-ethoxy** oligos, hydrophobic analogs of phosphodiesters, and that liposomal Bcl-2 **P-ethoxy antisense** oligos

(L-Bcl-2) could selectively inhibit Bcl-2 protein production, thereby inducing growth inhibition in Follicular Lymphoma cell lines. To understand the in vivo behavior of L-Bcl-2, we conducted a series of studies to evaluate the safety, pharmacokinetics, and tissue distribution of i.v. injections of L-Bcl-2 in normal rodents. Daily administration of 20 mg of L-Bcl-2/kg of body weight in 5 consecutive days had no adverse effects on renal or hepatic functions, nor on hematological parameters. Histopathology also did not reveal any significant changes in the morphology of the organs studied. In rats, the area under the curve of L-Bcl-2 reflects a two-compartment model of distribution with a biphasic plasma clearance. The T(1/2alpha) and T(1/2beta) were approximately 8 min and 4.2 h, respectively, and the V(d) was 79 ml, indicating a broad body distribution. The highest concentrations of L-Bcl-2 were found in spleen
>
liver > kidneys. These studies showed that in the schedules studied no significant toxicity associated with L-Bcl-2 was observed over 6 weeks, and that L-Bcl-2 could be widely distributed in the body.

L6 ANSWER 14 OF 20 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1999:186918 BIOSIS
DOCUMENT NUMBER: PREV199900186918
TITLE: Pharmacokinetics, safety, tissue distribution and antitumoral activity of liposomal **p-ethoxy antisense** oligonucleotides targeted to Bcl-2.
AUTHOR(S): Gutierrez-Puente, Y. (1); Tari, A. M.; Stephens, C.; Rosemblum, M.; Ford, R.; Guerra, R. T.; Lopez-Berestein, G.
CORPORATE SOURCE: (1) M.D. Anderson Cancer Cent., Houston, TX USA
SOURCE: Proceedings of the American Association for Cancer Research Annual Meeting, (March, 1999) Vol. 40, pp. 299. Meeting Info.: 90th Annual Meeting of the American Association for Cancer Research Philadelphia, Pennsylvania, USA April 10-14, 1999 American Association for Cancer Research . ISSN: 0197-016X.
DOCUMENT TYPE: Conference
LANGUAGE: English

L6 ANSWER 15 OF 20 USPATFULL
ACCESSION NUMBER: 1998:157500 USPATFULL
TITLE: Three component chimeric **antisense** oligonucleotides
INVENTOR(S): Arrow, Amy, Newtown, CT, United States
Dale, Roderic M.K., Wilsonville, OR, United States
Woolf, Tod Mitchell, 21 Birch Rd., Natick, MA, United States 01760
PATENT ASSIGNEE(S): Oligos Etc. Inc., Wilsonville, OR, United States (U.S. corporation)
Woolf, Tod Mitchell, Natick, MA, United States (U.S. individual)

	NUMBER	DATE
PATENT INFORMATION:	US 5849902	19981215
APPLICATION INFO.:	US 1996-754580	19961121 (8)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-26732	19960926 (60)

DOCUMENT TYPE: Utility
PRIMARY EXAMINER: LeGuyader, John L.
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP
NUMBER OF CLAIMS: 23

'EXEMPLARY CLAIM: 1
LINE COUNT: 588
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to **antisense** oligonucleotides that target mRNAs in cells as substrates for the cellular enzyme RNase H and thereby cause specific degradation of the targeted mRNA. The oligonucleotides have three components: a RNase H activating region, a complementarity region and 3' and 5' ends. The invention optimizes each of the components to resist intracellular nucleases, to increase hybridization to target mRNA, to specifically inactivate target mRNA in cells, and to decrease cytotoxicity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L6 ANSWER 16 OF 20 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1999:108968 BIOSIS
DOCUMENT NUMBER: PREV199900108968
TITLE: Inhibition of Bcl-2 with liposomal **P-ethoxy antisense** oligonucleotides induces apoptosis in the presence of high level of Bcl-XL and is critically depending on baseline Bcl-2 levels in AML.
AUTHOR(S): Konopleva, M.; Tari, A.; Estrov, Z.; Harris, D.; Lopez-Beresein, G.; Andreeff, M.
CORPORATE SOURCE: U Texas MD Anderson Cancer Cent., Houston, TX USA
SOURCE: Blood, (Nov. 15, 1998) Vol. 92, No. 10 SUPPL. 1 PART 1-2, pp. 510A-511A.
Meeting Info.: 40th Annual Meeting of the American Society of Hematology Miami Beach, Florida, USA December 4-8, 1998 The American Society of Heamatology
. ISSN: 0006-4971.
DOCUMENT TYPE: Conference
LANGUAGE: English

L6 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 4
ACCESSION NUMBER: 1998:400091 CAPLUS
DOCUMENT NUMBER: 129:183821
TITLE: Pharmacokinetics, tissue distribution, and safety of **p-ethoxy** oligonucleotides incorporated in liposomes
AUTHOR(S): Tari, Ana M.; Stephens, Clifton; Rosenblum, Michael; Lopez-Berestein, Gabriel
CORPORATE SOURCE: Department of Bioimmunotherapy, The University of Texas M.D. Anderson Cancer Center, Houston, TX, USA
SOURCE: J. Liposome Res. (1998), 8(2), 251-264
CODEN: JLREE7; ISSN: 0898-2104
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB **P-ethoxy** oligonucleotides (oligos) are lipophilic analogs of phosphodiesters. We have used liposomes to increase the intracellular uptake of **P-ethoxy** oligos, and demonstrated that liposomal **P-ethoxy antisense** oligos specific for Bcr-Abl, Grb2, Crkl or Bcl-2 mRNA could selectively inhibit the prodn. of the corresponding proteins, thereby inducing growth inhibition in leukemia and lymphoma cell lines. In support of studying the effectiveness of liposomal **P-ethoxy antisense** oligos in animal models, we had conducted a series of studies to evaluate the pharmacokinetics, tissue distribution and safety of i.v. injection of liposomal **P-ethoxy** oligos in normal mice. The pharmacokinetics and tissue distribution of liposomal **P-ethoxy** oligos are very similar to those of other liposomal compds. The plasma clearance rate of liposomal **P-ethoxy** oligos was biphasic; the t1/2.alpha. and t1/2.beta. were approx. 6.7 min and 7 h, resp. The highest concns. of liposomal **P-ethoxy** oligos were found in spleen and liver, with a t1/2 of approx. 48 h. When up to 180 mg of **P-ethoxy** oligos

per kg of mice's body wt. were used, the administration of liposomal **P-ethoxy** oligos h[redacted]no adverse effects on renal and hepatic functions[redacted]r on the hematol. parameters s[redacted]ied. No major organ pathol. changes were obsd. Our studies suggested that, at the doses studied, liposomal **P-ethoxy** oligos could be safely used in animal studies. Since liposomal **P-ethoxy** oligos were found to accumulate mainly in spleen and liver, which are the major organs of leukemic and lymphoma disease manifestation, we are currently investigating the use of liposomal **P-ethoxy** **antisense** oligos in exptl. leukemia and lymphoma animal models.

L6 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:278933 CAPLUS
DOCUMENT NUMBER: 126:255512
TITLE: Liposomal phosphodiester, phosphorothioate, and **P-ethoxy** oligonucleotides
INVENTOR(S): Lopez-Berestein, Gabriel; Tari, Ana Maria
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9707784	A2	19970306	WO 1996-US14146	19960826
W: AL, AM, AT, AU, BB, BG, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR				
US 5855911	A	19990105	US 1995-520385	19950829
CA 2228944	AA	19970306	CA 1996-2228944	19960826
AU 9669129	A1	19970319	AU 1996-69129	19960826
EP 847272	A2	19980617	EP 1996-929888	19960826
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11512099	T2	19991019	JP 1996-510642	19960826
US 6042846	A	20000328	US 1998-112869	19980709
PRIORITY APPLN. INFO.:			US 1995-520385	19950829
			WO 1996-US14146	19960826

AB An improved delivery system for **antisense** oligonucleotides involves a liposomal compn. comprising a liposome which consists essentially of neutral phospholipids and an **antisense** oligonucleotide that is entrapped in the liposome and is selected from phosphodiester oligonucleotides, phosphorothioate oligonucleotides, and uncharged **P-ethoxy** oligonucleotides. Liposomal encapsulation provides improved cellular uptake and intracellular delivery of the **antisense** oligonucleotides for inhibition of expression of endogenous genes, e.g. in anti-cancer therapy. Thus, **P-ethoxy** oligonucleotide GAAGGGCTTCTGCGTC, specific for the breakpoint junction on human chromosome 22 in a chromosome 9-22 reciprocal translocation in ALL-1 acute lymphocytic leukemia cells, was mixed with dioleoylphosphatidylcholine (DOPC) in distd. H2O,, then with excess tert-BuOH to a final tert-BuOH concn. of .gtoreq.95 vol.%, vortexed, lyophilized, rehydrated in HEPES-buffered saline, and sonicated; at a DOPC/**P-ethoxy** oligonucleotide ratio of 10:1, the incorporation efficiency was 83%. Free **P-ethoxy** oligonucleotides were sepd. from those incorporated into liposomes by

dialysis. ALL-1 cells incubated with these liposomes showed growth inhibition in vit[redacted] owing to inhibition of prodn. [redacted] the Bcr/Abl fusion protein, whose ge[redacted] spans the breakpoint; this pro[redacted]n shows enhanced tyrosine kinase activity assocd. with pathogenesis of the leukemia.

L6 ANSWER 19 OF 20 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1996:255295 BIOSIS
DOCUMENT NUMBER: PREV199698811424
TITLE: Antitumor activity of liposomal-bcl-2-**antisense** oligonucleotides in follicular lymphoma.
AUTHOR(S): Tormo, M. (1); Tari, A.; McDonnell, T. J.; Khodadadlan, M.;
Cabanillas, F.; Garcia-Conde, J.; Lopez-Berestein, G.
CORPORATE SOURCE: (1) Univ. Texas M. D. Anderson Cancer Center, Houston, TX USA
SOURCE: Proceedings of the American Association for Cancer Research
Annual Meeting, (1996) Vol. 37, No. 0, pp. 173.
Meeting Info.: 87th Annual Meeting of the American Association for Cancer Research Washington, D.C., USA April
20-24, 1996
ISSN: 0197-016X.
DOCUMENT TYPE: Conference
LANGUAGE: English

L6 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2001 ACS
ACCESSION NUMBER: 1997:308681 CAPLUS
DOCUMENT NUMBER: 126:338494
TITLE: Liposomal delivery of **P-ethoxy antisense** oligodeoxynucleotides in chronic myelogenous leukemia
AUTHOR(S): Tari, A. M.; Neamati, N.; Andreeff, M.; Lopez-Berestein, G.
CORPORATE SOURCE: Dept. of Bioimmunotherapy, Section of Immunobiology and Drug Carriers, University of Texas, M. D. Anderson
Cancer Center, Houston, TX, USA
SOURCE: NATO ASI Ser., Ser. A (1996), 290(Targeting Drugs 5), 163-168
CODEN: NALSDJ; ISSN: 0258-1213
PUBLISHER: Plenum
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We have studied the intracellular delivery of **P-ethoxy** oligos by liposomes and their efficacies as **antisense** mols. We found that liposomes could increase the intracellular delivery of **P-ethoxy** oligos, and that liposomal **P-ethoxy antisense** oligos could inhibit the proliferation of chronic myelogenous leukemia cells by reducing the prodn. of the Bcr-Abl fusion protein.

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